

AbstractDiffuser for Gas Turbine Engine (Fig. 3)

5 A gas turbine engine pre-diffuser 40 is generally annular, including radially inner and radially outer walls 40 and 42 and a generally cylindrical midline 48 defined between the walls. The pre-diffuser 40 includes a central member 46 which forces air flowing through the pre-diffuser
10 40 to separate, initially to be directed away from the midline 48 before subsequently being allowed to diffuse back towards the midline 48. The majority of the diffusion takes place on the walls of the central member and is thus in an inner region of the annulus of air ejected from the
15 pre-diffuser to pass to the combustor. Any boundary losses therefore do not significantly effect air at the extremities of this annulus, this air being destined for the annuli of the combustor and requiring relatively high energy levels.